



SPECIAL AIRWORTHINESS INFORMATION BULLETIN

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This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin alerts you, owners and operators of **Mooney Aircraft Company (Mooney) M20 series airplanes** listed in Table 1, of a potential problem with certain landing gear actuators. In particular, **the affected airplanes are those that incorporate Eaton (or Vickers) and Mooney electric landing gear actuator installed in production or retrofitted in the field per Mooney Drawing 940007.**

Mooney has developed M20 Service Bulletin M20-282, which specifies inspection of Avionics Products, Eaton, Mooney, or Vickers landing gear actuators [MAC P/N'S 560254-501, -503, -505, and -507; Avionics Products and Eaton (or Vickers) P/N'S 102000-1, -2, -3, -4, -5, -7].

Background

On April 30, 2001, a Mooney M20M airplane (N321JL) sustained a gear up landing. This airplane uses one of the spur gear actuators named in Table 1. Investigation revealed that the actuator failed internally due to the input shaft slipping relative to the output shaft. Two set-screws normally lock these two components together, but they were not aligned. The shafts have to be aligned so that the set-screws impinge on flat surfaces of the input shaft and lock the components.

On July 5, 2003 a Mooney M20R N557RM declared an emergency with ATCT due to the landing gear stuck in the up position. The pilot chose to fly to his intended destination and land gear up. The plane sustained minor damage. This airplane also uses one of the actuators named in Table 1. Investigation revealed that one end of the no back spring internal to the actuator had broken off. The unrestrained spring expanded and locked the actuator from any further movement.

Table 1

Mooney Affected Models	Serial Numbers
M20M	27-0001 through 27-0318
M20R	29-0001 through 0300
M20C, M20E, M20F, M20G, M20J, M20K, M20L, and M20S	All serial numbers

Recommendation

To prevent additional failures of the landing gear actuators, we strongly recommend that you comply with M20 Service Bulletin M20-282 (most recently approved version), part I and part II (as applicable).

For Further Information Contact

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